

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A method of assessing speech quality transmitted via a packet based telecommunications network comprising the steps of:

storing a sequence of intercepted packets associated with a call, each packet containing

speech data, and

an indication of a transmission time of said intercepted packet;

storing with each intercepted packet an indication of an intercept time of said packet;

extracting a set of parameters from said sequence of intercepted packets;

generating an estimated mean opinion score in dependence upon said set of parameters; and

storing said estimated mean opinion score on a computer-readable medium accessible by a user for visualization and analysis,

wherein the extracting step comprises the sub steps of:

generating a jitter parameter for each packet of said sequence of stored packets in dependence upon

a difference between the transmission time of a stored packet and the transmission time of a preceding stored packet of the sequence, and

a difference between the intercept time of said stored packet and the intercept time of said preceding stored packet;

generating a long term average jitter parameter (lt_jitter) for said stored packet in dependence upon the value of said jitter parameter (jitter) for said stored packet, the value of said jitter parameter for any preceding stored packets, and a predetermined adaptation rate (P) according to the equation:

$$lt_jitter = (lt_jitter * P) + (abs(jitter) * (1 - P));$$
 and

generating a differential jitter parameter in dependence upon the jitter parameter for said stored packet and the long term average jitter parameter;
and in which said set of parameters includes said differential jitter parameter.

2. (Previously Presented) A method according to claim 1, in which the extracting step further comprises the sub step of

generating a plurality of differential jitter parameters for a plurality of said stored packets;

determining a maximum value of said plurality of said differential jitter parameters.

3. (Previously Presented) A method according to claim 1, in which the extracting step further comprises the sub step of

generating a plurality of differential jitter parameters for a plurality of said stored packets;

determining a variance value of said plurality of said differential jitter parameters.

4. (Previously Presented) A method according to claim 2 in which the extracting step further comprises the sub steps of:

generating a plurality of maximum values for a plurality of sub-sequences of said stored packets;

determining an average for a sequence of said maximum values.

5. (Previously Presented) A method according to claim 3 in which the extracting step further comprises the sub steps of:

generating a plurality of variance values for a plurality of sub-sequences of said stored packets;

determining an average for a sequence of said variance values.

Claims 6-8 (Cancelled)

9. (Currently Amended) An apparatus for assessing speech quality transmitted via a packet based telecommunications network comprising:

means for storing a sequence of intercepted packets associated with a call, each packet containing

speech data, and

an indication of a transmission time of said packet;

means for storing with each intercepted packet an indication of an intercept time of said intercepted packet;

means for extracting a set of parameters from said sequence of intercepted packets;

means for generating an estimated mean opinion score in dependence upon said set of parameters; and

means for storing said estimated mean opinion score on a computer-readable medium accessible by a user for visualization and analysis,

wherein the means for extracting further comprises:

means for generating a jitter parameter for each intercepted packet of said sequence of stored intercepted packets in dependence upon

a difference between the transmission time of a stored intercepted packet and the transmission time of a preceding stored packet of the sequence, and

a difference between the intercept time of said stored intercepted packet and the intercept time of said preceding stored intercepted packet;

means for generating a long term average jitter parameter (lt_jitter) for said stored packet in dependence upon the value of said jitter parameter (jitter) for said stored intercepted packet, the value of said jitter parameter for any preceding stored intercepted packets and a predetermined adaptation rate (P) according to the equation: $lt_jitter = (lt_jitter * P) + (abs(jitter) * (1 - P))$; and means for generating a differential jitter parameter in dependence upon the jitter parameter for said stored intercepted packet and the long term average jitter parameter;

and in which said set of parameters includes said differential jitter parameter.